Claims

1. A method for storing plant process signals (5),
   characterized in that depending on the current operating
   state (I,II) of the plant a compression method matched to
   the current operating state (I,II) is applied to the set of
   process signals (5) and a thereby determined compressed
   process signal set (25) is stored.

2. The method as claimed in claim 1,
   characterized in that the process signals are
   simultaneously acquired so that the set of process signals
   corresponds to a particular instant.

3. The method as claimed in claim 1 or 2,
   characterized in that the operating state (I,II) of the
   plant changes during its operation and at least two
   different compression methods are applied.

4. The method as claimed in one of the claims 1 to 3,
   characterized in that the compression method involves
   acquiring process signals at definable time intervals
   (10,15).

5. The method as claimed in claim 4,
   characterized in that the size of the time intervals
   (10,15) is selected according to the current operating
   state (I,II) of the plant.

6. The method as claimed in one of the claims 1 to 5,
   characterized in that the compression method involves
   examining at least one of the process signals (5) to
   ascertain whether the process signal (5) has remained
   within an amplitude band (20) since it was last stored

and how long ago it was last stored, the process signal
(5) only being stored if it was last stored longer ago
than a predefined time interval.

5   7.   The method as claimed in one of the claims 1 to 6,
         characterized in that the compression method involves
         examining at least one of the process signals (5) to
         ascertain whether the process signal (5) has left a
         further amplitude band (201) since it was last stored and
10        how long ago it was last stored, the process signal (5)
         being stored only after it has left the further amplitude
         band (201).

     8.   The method as claimed in claim 6 or 7,
15        characterized in that the size of the amplitude band (20)
         and/or of the further amplitude band (201) is selected
         according to the current operating state (I,II) of the
         plant.

20   9.   The method as claimed in one of the claims 1 to 8,
         characterized in that process signals (5) whose current
         values are in the region of a zero point are stored with
         the value zero.

25   10   The method as claimed in one of the claims 1 to 9,
         characterized in that the process signals (5) are first
         stored in a header buffer and only subsequently processed
         by means of the compression method matched to the current
         operating state (I,II) and stored as a compressed signal
30        set (25), the current operating state (I,II)
         corresponding to an instant other than the instant of
         storage of the process signals (5) in the header buffer.

11. The method as claimed in one of the claims 1 to 10,
    characterized in that the process signals (5) are monitored
    for violation of a limit value.

5   12. The method as claimed in claim 11,
        characterized in that the limit value is set according to
        the current operating state (I,II) of the plant.